

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

**Addendum to the Army Creek Landfill Third Five-Year Review Report
dated September 28, 2009**

A Five-Year Review addendum is generally completed for remedies where the protectiveness determination is deferred until further information is obtained. When deferring protectiveness in the Five-Year Review report, EPA typically provides a timeframe for when the information will be obtained and a protectiveness statement can be made. This document provides progress since the last Five-Year Review and a protectiveness determination for the remedy, which was deferred in the September 28, 2009 Five-Year Review Report.

The Third Five-Year Review Report (Report) for the Army Creek Landfill site in New Castle, Delaware, was signed by Kathryn Hodgkiss, Acting Director of the Hazardous Site Cleanup Division, on September 28, 2009. The protectiveness statement given in the Report is as follows:

The remedial action is expected to achieve protectiveness in the long term. However, a protectiveness determination regarding the source control aspect of the remedy cannot be made based on existing data and is being deferred until further information is obtained. Specifically, additional testing is required in order to evaluate the potential for offsite migration of landfill gas and soil vapor intrusion at buildings adjacent to the landfill. Direct contact threats have been addressed through capping of contaminated soil and waste material, installation of a fence, and institutional controls restricting use of the landfill property. All of the groundwater cleanup standards, with the exception of the standard for lead, have been attained at the property boundary. State implementation of a Groundwater Management Zone is preventing exposure to lead near the property boundary, and will continue to prevent exposure to site-related contaminants (e.g. iron and manganese) in groundwater beneath the landfill property after all of the groundwater cleanup standards have been attained at the property boundary. It is expected that the soil vapor intrusion evaluation can be completed within one year, at which time a protectiveness determination will be made.

Progress Since the Five-Year Review Completion Date

On December 16, 2009, the Settling Defendants at the Site submitted a Soil Vapor Intrusion Pathways Evaluation Summary. Based on this information, EPA concluded that the vapor intrusion pathway is incomplete for residential neighborhoods located southwest of the landfill, and that commercial structures to the northwest of the landfill are either too distant from the landfill for vapor intrusion to occur, or that the building structures are such that vapors would not accumulate to cause either an explosion hazard or a threat to human health. Because of the current low potential for landfill gas migration to pose a threat to human health or the environment, there is no need for a vapor intrusion field investigation at this time. However, if new enclosed buildings are erected close to the perimeter of the landfill, or existing buildings are

converted to enclosed structures, an evaluation of the soil vapor intrusion pathway should again be performed.

Protectiveness Statements

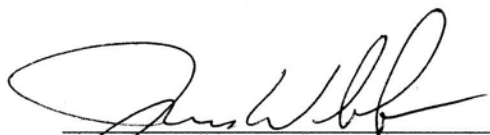
Based on new information and/or actions taken since the Third Five-Year Review completion date, the protectiveness statement is being revised as follows:

The remedial action is expected to be protective of human health and the environment upon attainment of all of the groundwater cleanup standards. Direct contact threats have been addressed through capping of contaminated soil and waste material, installation of a fence, and institutional controls restricting use of the landfill property. All of the groundwater cleanup standards, with the exception of the standard for lead, have been attained at the property boundary. State implementation of a Groundwater Management Zone is preventing exposure to lead near the property boundary, and will continue to prevent exposure to site-related contaminants (e.g. iron and manganese) in groundwater beneath the landfill property after all of the groundwater cleanup standards have been attained at the property boundary.

Information supporting this determination is included in the Site file.

Next Five-Year Review

The next Five-Year Review will be completed by September 28, 2014, five years after the signature of the Third Five-Year Review Report.



James Webb, Associate Director
Hazardous Site Cleanup Division
U.S. EPA Region III

Date

APRIL 9, 2010